

PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Jack W. Szostak et al.

Art Unit:

Not yet assigned

Serial No.:

10/004,381

Examiner:

Not yet assigned

Filed:

October 31, 2001

Customer No.:

21559

Title:

STREPTAVIDIN-BINDING PEPTIDES AND USES THEREOF

Assistant Commissioner For Patents Washington, DC 20231

INFORMATION DISCLOSURE STATEMENT

Applicants submit the references listed on the attached form PTO-1449, copies of which are enclosed. A copy of a communication from a foreign patent office in a counterpart application is also enclosed.

Submission of this statement is not a representation that a search has been made, nor is information included in this statement an admission that the information is material to patentability.

This statement is being filed before the receipt of a first Office action on the merits.

If there are any other charges, or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: 22 Februay 2002

Caren L. Elbing, Ph.D.

Reg. No. 35,238

Clark & Elbing LLP 176 Federal Street Boston, MA 02110

Telephone: 617-428-0200

Facsimile: 617-428-7045

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	FORM PTO-1449	U.S. DEPART	MENT OF COMMERCE	Attorney D	ocket No.	00786/388	3002	
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				Applicant		Szostak et al.		
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Examiner's Initials	Patent Number	Issue Date	Patentee		Class	Subclass	Filing Date (If Appropriate	
	5,821,047	10/13/98	Garrard et al.		435			
	5,506,121	4/9/96	Skerra et al.		435			
-	6,103,493	8/15/00	Skerra et al.		435			
	FORE	IGN PATENT (OR PUBLISHED FOREIGI	N PATENT A	PPLICATION	ON		
Examiner's Initials	Document Number	Publication Date	Country or Patent Office)	Class	Subclass	Translation (Yes/No)	
	WO 98/31700	7/23/98	PCT					
	OTHER DOCL	JMENTS (INCL	UDING AUTHOR, TITLE,	DATE, PLAC	E OF PUE	BLICATION)		
	Bayer et al., "Pos	stsecretory mod	difications of streptavidin,"	Biochem. J.:	259:369-37	6 (1989).		
	Cho et al., "Cons 297:309-319 (20	structing high co	omplexity synthetic librarie	s of long ORI	Fs using <i>in</i>	vitro selection	on," <i>J. Mol. Biol</i> .	
,	Clackson et al.,	"In vitro selectio	on from protein and peptide	e libraries," T	IBTECH. 1	2:173-184 (1	994).	
,	Devlin et al., 'Ra (1991).	ndom peptide I	ibraries: A source of speci	fic protein bir	nding mole	cules," <i>Scier</i>	ace 249:404-406	
	Giebel et al., "So affinities," Bioche	reening of cycli emistry 34:1543	ic peptide phage libraries i 30-15435 (1995).	dentifies liga	nds that bi	nd streptavid	in with high	
•	Haeuptle et al., J. Biol. Chem. 2	Binding sites fo 58:305-314 (19	or lactogenic and somatog 83).	enic hormon	es from rab	bit mammar	y gland and live	
	Katz et al., "Topochemical catalysis achieved by structure-based ligand design," J. Biol. Chem. 270:31210-31218 (1995).							
	Katz et al., 'In co	ystals of compl stidine is less the	lexes of streptavidin with phat 3.0," <i>J. Biol. Chem.</i> 27	eptide ligand 2:13220-132	ls containir 28 (1997).	g the HPQ s	equence the pK	
	Katz et al., 'Stru engineered by p	ctural and mec hage display,".	hanistic determinants of a Annu. Rev. Biophys. Biom	ffinity and spool. Struct. 26	ecificity of I :27-45 (19	igands disco 97).	vered or	
	Kay et al., "An N with affinity to se	113 phage libra elected targets,	ry displaying random 38-a " <i>Gene</i> . 128:59-65 (1993).	mino-acid pe	ptides as a	source of n	ovel sequences	
,	Lam et al., "A ne (1991).	ew type of synth	netic peptide library for ide	ntifying ligan	d-binding a	ctivity," Natu	re 354:82-84	
EXAMINER			DATE	CONSIDERE	D _			
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	FORM PTO-1449	MENT OF COMMERCE	Attorney Docket No.		00786/388002		
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				Customer No.		21559	
			U.S. PATENTS				
Examiner's Initials	Patent Number	Issue Date	Patentee		Class	Subclass	Filing Date (If Appropriate)
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	OTHER DOCU	IMENTS (INCLU	JDING AUTHOR, TITLE, I	DATE, PLAC	E OF PUB	LICATION)	
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	Liu et al., "Optimi 318:268-293 (200		f RNA — protein fusions f	or <i>in vitro</i> pro	tein select	ion," <i>Method</i>	ls Enzymol.,
•	318:268-293 (200	00).	f RNA — protein fusions f				
•	318:268-293 (200 McLafferty et al.,	00). 'M13 bacteriop	·	constrained n	nicroprotei	ns," <i>Gene</i> 12	28:29-36 (1993).
•	318:268-293 (200 McLafferty et al., McCafferty et al., 554 (1990).	'M13 bacteriopi 'Phage antiboo	hage displaying disulfide-	constrained n	nicroprotei	ns," <i>Gene</i> 12 ole domains,	28:29-36 (1993). " Nature 348:552-
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	318:268-293 (200 McLafferty et al., McCafferty et al., 554 (1990). Ostergaard et al. <i>Letters</i> 362:306-3 Roberts et al., "R 94:12297-12302	"M13 bacteriop "Phage antiboo "Novel avidin a 308 (1995). "NA - peptide fus (1997).	hage displaying disulfide-o lies: filamentous phage di and streptavidin binding se	constrained n splaying antil equences fou	nicroprotei body variat nd in synth	ns," Gene 12 ple domains, netic peptide teins," Proc.	28:29-36 (1993). " Nature 348:552- libraries," Febs Natl. Acad. Sci.
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